

AMENDMENTS TO THE SPECIFICATION:

1. Replace the paragraph beginning on line 9 of page 3 with the following paragraph:

The computer (100) is also equipped with a low-power radio transmitter that is connected to the computer's audio output. This device transmits over local radio the audio generated by the computer. Practitioners of ordinary skill will recognize that the equivalent system can be constructed where the audio is transmitted as digital data over a wireless or wired data network to each audio beacon (107). As shown in Figure 2, the system includes at least one audio beacon (107) which is capable of receiving signals from the low-power transmitter (106). In the preferred embodiment, there is one beacon for each destination or set location on the way to a destination. However, beacons can be placed arbitrarily in the environment to indicate passage, hazards and other aspects of the environment. In one embodiment, the beacons (107) contain: A radio receiver (108) tuned to the same frequency as the transmitter (106); A dial-tone multi-frequency (DTMF) activated relay (109) placed in-line with the audio output from the receiver (108). This device detects the tones generated by the audio output of the computer that are transmitted. When the DTMF detector in a specific audio beacon (107) detects the encoded string of audio tones that uniquely identifies it, it will close a circuit between a loudspeaker and an audio amplifier housed within the beacon (107). At that point, the computer (100) then transmits the audio cue sound corresponding to the user requesting the navigational fix. Practitioners of ordinary skill will recognize that instead of using a DTMF to detect audio tones that uniquely select each destination audio beacon, a data network can be used where each audio beacon (107) has a unique numerical address or identifier. The data network could be wireless 802.11 standard or a wired network like Ethernet. Audio can be directed to the output of the audio beacon (107) by the computer (100) transmitting data that is uniquely addressed for such audio beacon (107) which would include what sounds to generate through the loudspeaker, or alternatively, would provide an index specifying which one of a group of sounds stored in the audio beacon device to play. In the former case, the audio can be delivered as an analog signal, where the sound is rendered at the output of the computer, or as digital data whereby the audio is rendered by the audio beacon itself (107). In the latter case, the computer system (100) can download into all of the beacons (107) the library of auditory cues to select from.

2. The changes in the paragraph beginning on line 9 of page 3 are indicated below:

The computer (100) is also equipped with a low-power radio transmitter that is connected to the computer's audio output [[(106)]]. This device transmits over local radio the audio generated by the computer. Practitioners of ordinary skill will recognize that the equivalent system can be constructed where the audio is transmitted as digital data over a wireless or wired data network to each audio beacon (107). As shown in Figure 2, the [[The]] system includes at least one audio beacon (107) which is capable of receiving signals from the low-power transmitter (106). In the preferred embodiment, there is one beacon for each destination or set location on the way to a destination. However, beacons can be placed arbitrarily in the environment to indicate passage, hazards and other aspects of the environment. In one embodiment embodiment, the beacons (107) contain: A radio receiver (108) tuned to the same frequency as the transmitter (106); A dial-tone multi-frequency (DTMF) activated relay (109) placed in-line with the audio output from the receiver (108). This device detects the tones generated by the audio output of the computer [[(106)]] that are transmitted. When the DTMF detector in a specific audio beacon (107) detects the encoded string of audio tones that uniquely identifies it, it will close a circuit between a loudspeaker and an audio amplifier housed within the beacon (107). At that point, the computer (100) then transmits the audio cue sound corresponding to the user requesting the navigational fix. Practitioners of ordinary skill will recognize that instead of using a DTMF to detect audio tones that uniquely select each destination audio beacon, a data network can be used where each audio beacon (107) has a unique numerical address or identifier. The data network could be wireless 802.11 standard or a wired network like Ethernet. Audio can be directed to the output of the audio beacon (107) by the computer (100) transmitting data that is uniquely addressed for such audio beacon (107) which would include what sounds to generate through the loudspeaker, or alternatively, would provide an index specifying which one of a group of sounds stored in the audio beacon device to play. In the former case, the audio can be delivered as an analog signal, where the sound is rendered at the output of the computer [[(106)]], or as digital data whereby the audio is rendered by the audio beacon itself (107). In the latter case, the computer system (100) can download into all of the beacons (107) the library of auditory cues to select from.

3. Replace the paragraph beginning on line 28 of page 6 with the following paragraph:

Similarly, each beacon (117) are each assigned a unique data network numerical address number, for example, an IP (Internet Protocol) address. If the computer is to cause an audio cue to be played by a specific beacon, for example, the wireless network transmitter (106) would send out data packets to the beacons (117) which logically addressed the specific beacon as required. Each beacon will have a unique logical address (112). In this embodiment, the computer sends a data packet onto the network that has the same logical address as the audio beacon designated by the user. All audio beacons (117) can receive the data packet, but the audio beacon (117) that has a matching logical address will be activated. The data packet contains the cue sound corresponding to the user, as determined by the computer (100). Alternatively, the data packet can contain a logical reference to the cue sound, which can be stored in the memory of the audio beacon (115). That logical reference determines which cue sound the audio beacon emits once it decodes the data packet. In another variation, the computer (100) can send digital audio data to the beacon (117) to be played back. The microprocessor would generate the audio output by referencing the appropriate sound indicated in the incoming data packet and accessing a library of audio cue sounds that are digitally encoded and stored in a local computer memory device (115), including digital audio data that is delivered as part of the command protocol that issued from the computer (100). This is then amplified and output through the loudspeaker (113, 114). In summary, the practitioner of ordinary skill will recognize that the data network provides functionality that when the user actuates a key, or makes voice command into the device, the appropriate command encoded as a data packet is transmitted to the computer (100) through the wireless antenna, or when the computer causes a sound to be emitted by beacon, or some other event to occur, the computer sends a data packet over the data network to the appropriate beacon (117) or other device it is controlling.

4. Changes to the paragraph beginning on line 28 of page 6 are indicated below:

Similarly, each beacon [(107)] (117) are each assigned a unique data network numerical address number, for example, an IP (Internet Protocol) address. If the computer is to cause an

audio cue to be played by a specific beacon, for example, the wireless network transmitter [(112)] (106) would send out data packets to the beacons [(107)] (117) which logically addressed the specific beacon as required. Each beacon will have a unique logical address (112). In this embodiment, the computer sends a data packet onto the network that has the same logical address as the audio beacon designated by the user. All audio beacons [(107)] (117) can receive the data packet, but the audio beacon [(107)] (117) that has a matching logical address will be activated. The data packet contains the cue sound corresponding to the user, as determined by the computer (100). Alternatively, the data packet can contain a logical reference to the cue sound, which can be stored in the memory of the audio beacon [(107)] (115). That logical reference determines which cue sound the audio beacon emits once it decodes the data packet. In another variation, the computer (100) can send digital audio data to the beacon [(107)] (117) to be played back. The microprocessor would generate the audio output by referencing the appropriate sound indicated in the incoming data packet and accessing a library of audio cue sounds that are digitally encoded and stored in a local computer memory device (115), including digital audio data that is delivered as part of the command protocol that issued from the computer (100). This is then amplified and output through the loudspeaker (113, 114). In summary, the practitioner of ordinary skill will recognize that the data network provides functionality that when the user actuates a key, or makes voice command into the device, the appropriate command encoded as a data packet is transmitted to the computer (100) through the wireless antenna, or when the computer causes a sound to be emitted by beacon, or some other event to occur, the computer sends a data packet over the data network to the appropriate beacon [(107)] (117) or other device it is controlling.